NVIDIA GeForce FX Series User's Guide

Copyright

Copyright 2003, all rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of this company,

Disclaimer

We makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties, merchantability or fitness for any particular purpose. Any software described in this manual is sold or licensed "as is". Should the programs prove defective following their purchase, the buyer (and not this company, its distributor, or its dealer) assumes the entire cost of all necessary servicing, repair, and any incidental or consequential damages resulting from any defect in the software. Further, this company reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation to notify any person of such revision or change.

All brands or product names mentioned in this manual are trademarks or registered trademarks of their respective companies.

FCC Class B Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measure:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/television technician for help.

Notice 1:
The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Notice 2:
Shielded interface cables must be used in order to compiliy with the emission limit.

Macrovision

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited

Table of Contents

Table of Contents III
Chapter 1 – Introduction 1
1.1 Specifications & Features 1
Chapter 2 – Hardware Installation 1
2.1 – Item Check 1
2.2 – Installation Procedure 1
Chapter 3 – Software Installation 4
3.1 – Display Driver Manual Installation 4
3.1.1 Setup Windows Me/98/95 Standard VGA Mode (For First Time Installation) 4
3.1.2 Setup Windows Me/98/95 Standard VGA Mode (For Upgrading) 5
3.1.3 Setup Windows Me/98/95 Display Driver (Manual Setup) 6
3.1.4 Setup Windows XP/2000 Display Driver (Manual Setup) 7
3.2 – Display Driver Automatic Installation 10
3.3 – WDM Capture Driver Installation 10
Chapter 4 – Software Introduction 11
4.1 – NVIDIA Display Properties 11
4.2 – NVIDIA nView and Desktop Manager 13
4.2.1 – nView 13
4.2.2 – Desktop Manager 13

Chapter 1 – Introduction

1.1 Specifications & Features

The NVIDIA GeForce FX GPU ushers in a new era of graphics and gaming. With the GeForce FX powering your graphics experiences, you can run applications and games at higher resolutions and at speeds never before possible. Everything a bleeding-edge gamer desires is packed inside this powerhouse of a processor, including the latest high-speed DDR2 memory, an expansive AGP 8X pipeline and unparalleled Intellisample™ technology driving scenes of unrivalled beauty at unmatched speeds.

Power and performance, the two elements every gamer craves, are the heart and soul of the GeForce FX. Powered by pure adrenaline and engineered with a passion for perfection, the GeForce FX delivers cinematic effects beyond imagination. Its CineFX™ engine produces gaming effects on par with the hottest motion pictures. Combined with the industry's first true 128-bit studio-quality color processing technology, 3D worlds and characters are more real than anything that's come before.

Chapter 2 – Hardware Installation

2.1 – Item Check

- Graphics Card
- User's Guide
- Drivers & Utilities CD

2.2 – Installation Procedure

- Caution :

Static electricity can severely damage electronic parts, Take these precautions : Before touching any electronic part, drain the static electricity from your body. You can do this by touching the internal metal frame of your computer while it's unplugged.

Chapter 2 – Hardware Installation

Do not remove a card from the anti-static container until you are ready to install it.
When you remove a card from your computer, place it back in its container.
Do not let your clothes touch any electronic parts.
When handling a card, hold it by its edges, and avoid touching its circuitry.

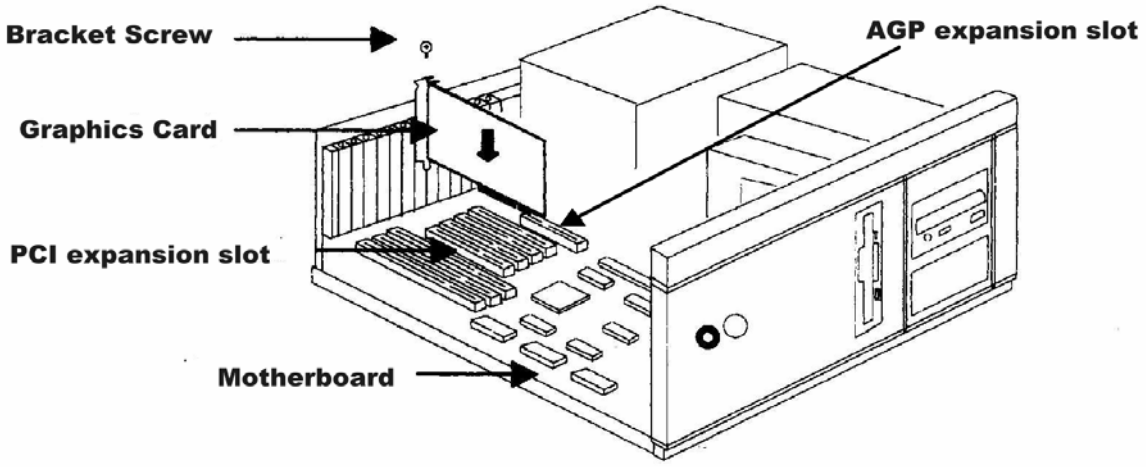
Before You Begin

Before your process next step, make sure your computer system meets the peripheral requirements and switch to Standard VGA Display Driver.

Prepare Your Computer for Installation

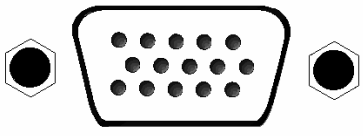
Prior to working on your computer, make sure the power and any related equipment are turned off.

How to Insert Your AGP Graphics Card



How to Connect the Monitor

Plug your monitor cable into the monitor connector on your AGP graphics card. Make sure the other end of the monitor cable is properly connected to your monitor.



Monitor Connector (Blue)

Installation Procedure

- For the first time installation

1. Locate the AGP bus expansion slot, make sure this slot is unobstructed.
2. Remove the corresponding expansion slot cover from the computer chassis.
3. Ground yourself to an anti-static mat or other grounded source.
4. Position the card directly over the AGP slot and insert one end of the card down into the slot.
5. Be sure the metal contacts on the bottom of the host adapter are securely seated in the slot.
6. Connect your analog monitor's 15-pin VGA connector to the card and fasten the retaining screws (if any).
7. Connect other cables and devices if available.

Now you are ready to install the driver and utilities.

- For Systems with existing VGA card.

1. Change your display driver to Standard VGA Display Driver.
2. Shut down your computer and unplug all electrical cards.
3. Replace the existing VGA card with the new graphics card.
4. Restart your computer and install the new display driver.

Chapter 3 – Software Installation

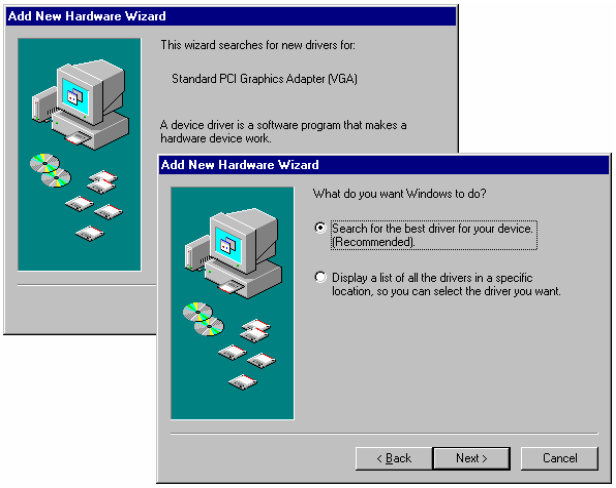
3.1 – Display Driver Manual Installation

- Caution:
- Before installing the display driver, make sure your Windows Me/98/95 is installed in VGA Mode and works fine.
- For Windows 95 user. To take advantage of all the AGP features, please use Windows 95 OSR2.1 or later version.

The AGP driver is required for non-Intel chipset. Please use correct AGP drive to install for different chipset.

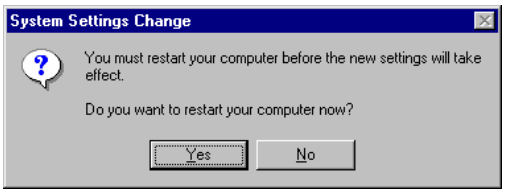
3.1.1 Setup Windows Me/98/95 Standard VGA Mode (For First Time Installation)

1. Start Windows Me/98/95.
2. Add New Hardware Wizard dialog box will appear and detect as Standard PCI Graphic Adapter (VGA).
3. Click Next to begin setup the VGA driver. If the Windows ask you for your Windows Me/98/95 CD, insert the CD, or change the path to \Windows\System folder.


Add New Hardware Wizard
This wizard searches for new drivers for:
Standard PCI Graphics Adapter (VGA)
A device driver is a software program that makes a hardware device work.
Add New Hardware Wizard
What do you want Windows to do?
Search for the best driver for your device. (Recommended).
Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back
Next >
Cancel

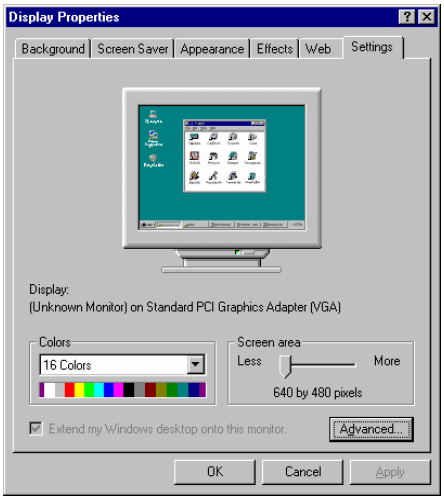
4. Windows will prompt you to restart your Windows, Click Yes to reboot.

5. After system reboot. You may begin to setup NVIDIA VGA driver.

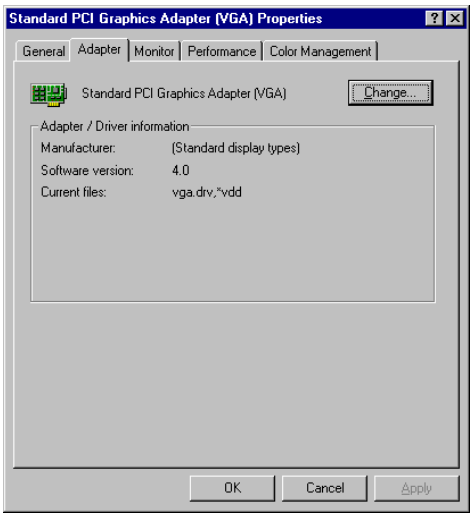

System Settings Change
You must restart your computer before the new settings will take effect.
Do you want to restart your computer now?
Yes
No

3.1.2 Setup Windows Me/98/95 Standard VGA Mode (For Upgrading)

1. Start Windows Me/98/95. Click mouse right button on the desktop and select Properties from the popup menu, or double clock on the Display icon from the Control Panel folder.



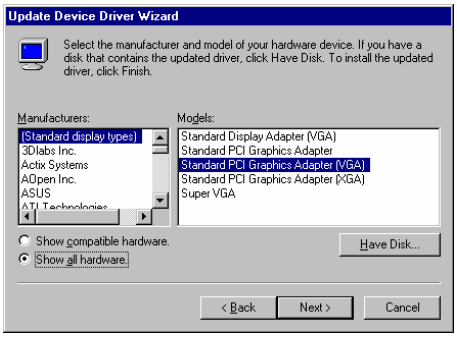
2. Select Setting->Advanced, then select Adapter page, and click Change button.



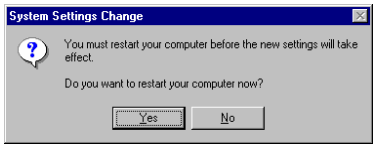
3. When Update Device Drivers Wizard Dialog box appears on screen, select Display a list of all drivers, so you can select the driver you want.

Update Device Driver Wizard
What do you want Windows to do?
Search for a better driver than the one your device is using now. (Recommended)
Display a list of all the drivers in a specific location, so you can select the driver you want
< Back
Next >
Cancel

4. Select Standard Display Type from the manufacturers and select Standard PCI Display Adapter(VGA) from the models, then click OK button.


Update Device Driver Wizard
Select the manufacturer and model of your hardware device. If you have a disk that contains the updated driver, click Have Disk. To install the updated driver, click Finish.
Manufacturers:
Models:
(Standard display types)
3Dlabs Inc.
Actix Systems
AOpen Inc.
ASUS
Standard Display Adapter (VGA)
Standard PCI Graphics Adapter
Standard PCI Graphics Adapter (VGA)
Standard PCI Graphics Adapter (XGA)
Super VGA
Show compatible hardware.
Show all hardware.
Have Disk...
< Back
Next >
Cancel

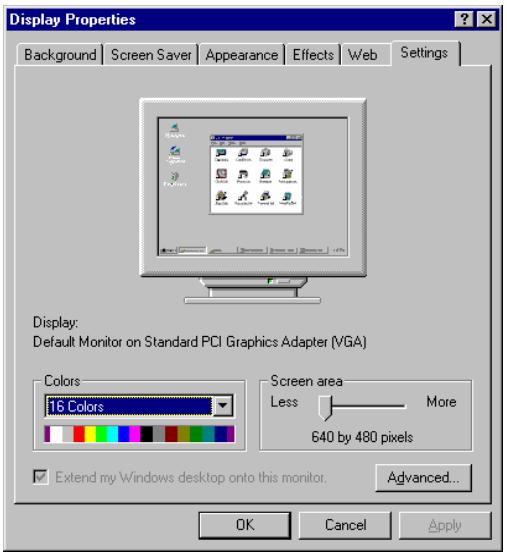
5. After complete installing Standard VGA Driver. Click Close button and restart Windows.


System Settings Change
You must restart your computer before the new settings will take effect.
Do you want to restart your computer now?
Yes
No

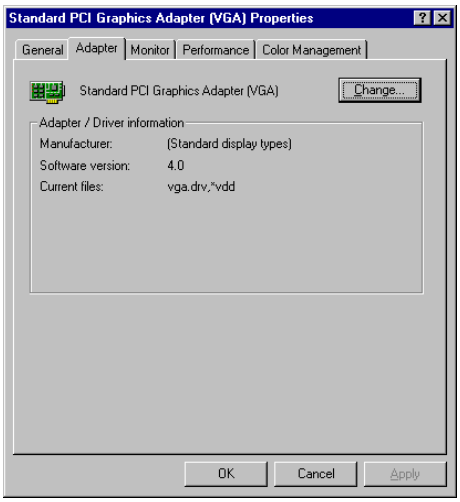
6. After System reboot. You may begin to setup NVIDIA VGA Driver.

3.1.3 Setup Windows Me/98/95 Display Driver (Manual Setup)

1. Start Windows Me/98/95,
2. Click mouse right button on the desktop and select Properties from the popup menu, or double clock on the Display icon from the Control Panel folder.



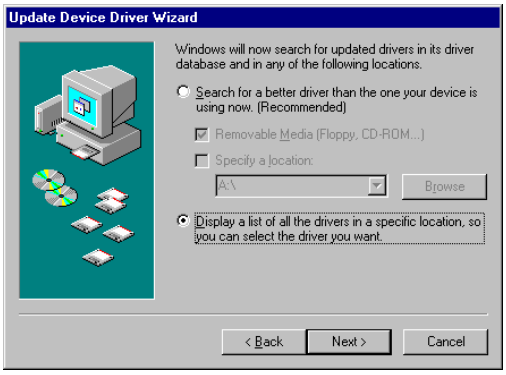
3. Select Setting->Advanced, then select Adapter page, and click Change button



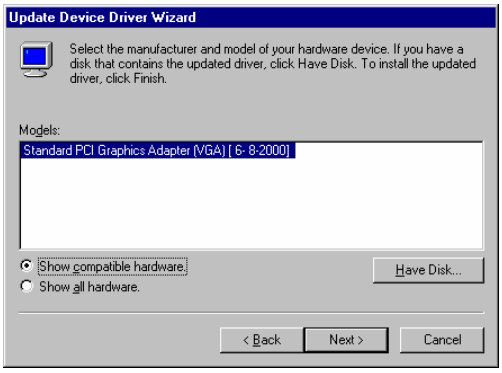
4. When Update Device Drivers Wizard dialog box appears on the screen, select Specify the location of the driver to show all VGA devices.

Update Device Driver Wizard
This wizard searches for updated drivers for:
Standard PCI Graphics Adapter (VGA)
Windows can search for and install an updated driver to replace the one currently being used by your hardware. Or, you can specify the location of another driver.
What would you like to do?
Automatic search for a better driver (Recommended)
Specify the location of the driver (Advanced)
< Back
Next >
Cancel

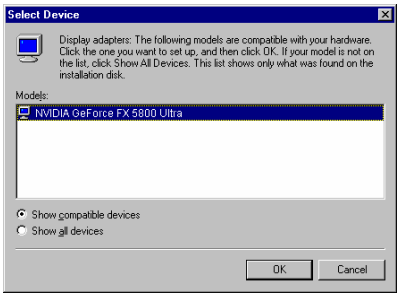
5. Select “Display a list of all the driver in a specific location”, and click Next button.


Update Device Driver Wizard
Windows will now search for updated drivers in its driver database and in any of the following locations.
Search for a better driver than the one your device is using now. (Recommended)
Removable Media (Floppy, CD-ROM...)
Specify a location:
A:\
Browse
Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back
Next >
Cancel

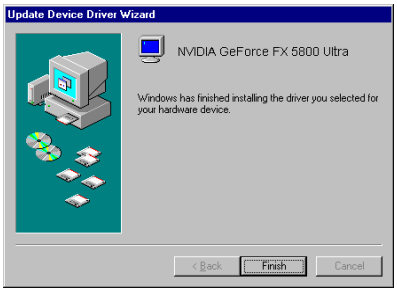
6. Click Have Disk button from the Select Device dialog box, Enter the Driver Path (\NVIDIA\WinMe9x) or click Browse button to select driver folder.


Update Device Driver Wizard
Select the manufacturer and model of your hardware device. If you have a disk that contains the updated driver, click Have Disk. To install the updated driver, click Finish.
Models:
Standard PCI Graphics Adapter (VGA) [6- 8-2000]
Show compatible hardware.
Show all hardware.
Have Disk...
< Back
Next >
Cancel

7 Select your VGA model and click OK to start install.

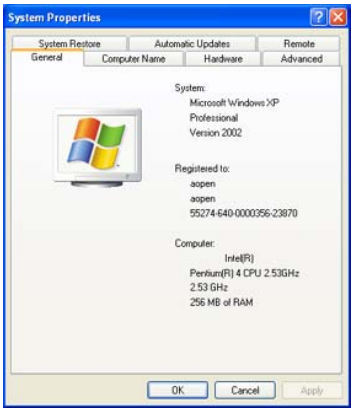

Select Device
Display adapters: The following models are compatible with your hardware. Click the one you want to set up, and then click OK. If your model is not on the list, click Show All Devices. This list shows only what was found on the installation disk.
Models:
NVIDIA GeForce FX 5800 Ultra
Show compatible devices
Show all devices
OK
Cancel

8. After complete installing VGA Display Driver, please restart Windows to enable VGA driver.

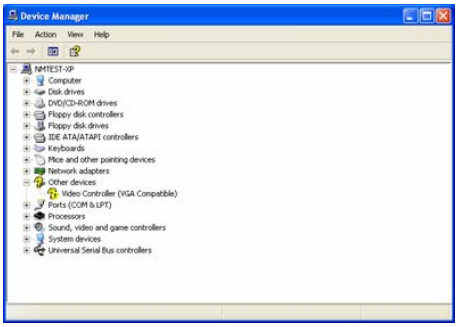

Update Device Driver Wizard
NVIDIA GeForce FX 5800 Ultra
Windows has finished installing the driver you selected for your hardware device.
< Back
Finish
Cancel

3.1.4 Setup Windows XP/2000 Display Driver (Manual Setup)

1. Start Windows XP/2000 and insert the Installation CD disk into the CD-ROM drive.
2. Click mouse right button upon My Computer and select Properties from the popup menu.
3. Select Hardware and then click the Device Manager button .



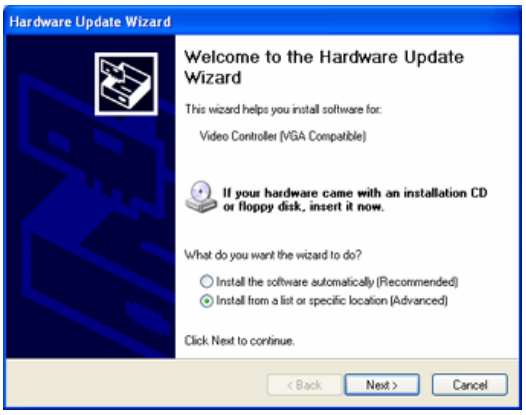
4. The Windows XP/2000 Device Manager dialog appears, click mouse right button upon Video Controller in others device. Then select Properties from popup menu.



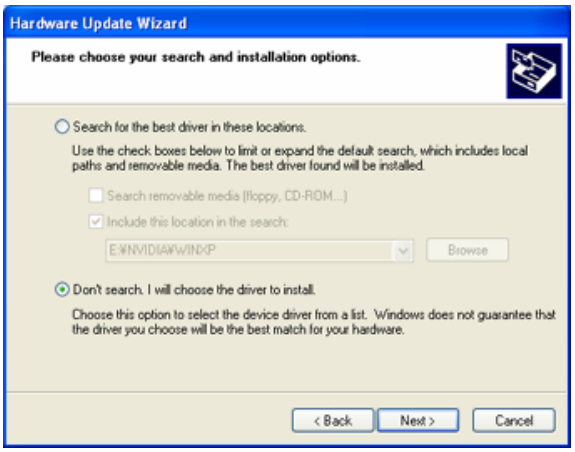
Chapter 3 – Software Installation

5. Select Reinstall Driver button.

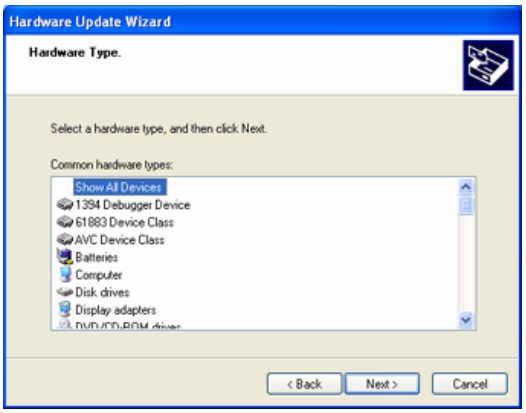
6. Select the "Install from a list or specify location (Advanced)" item, and then click Next button.


Hardware Update Wizard
Welcome to the Hardware Update Wizard
This wizard helps you install software for:
Video Controller (VGA Compatible)
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

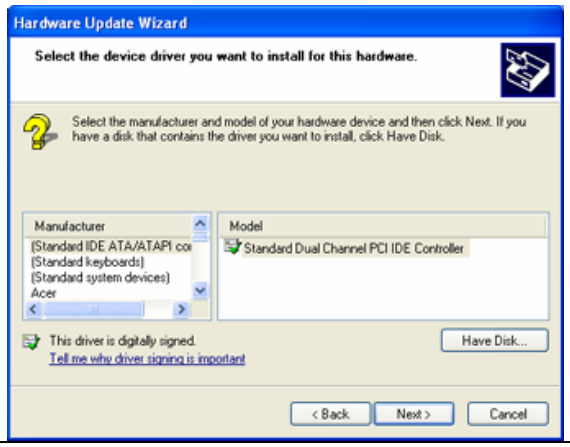
7. Select the "Don't Search, I will choose the driver to install" item, and then click Next button.


Hardware Update Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
E:\NVIDIA\WINXP
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

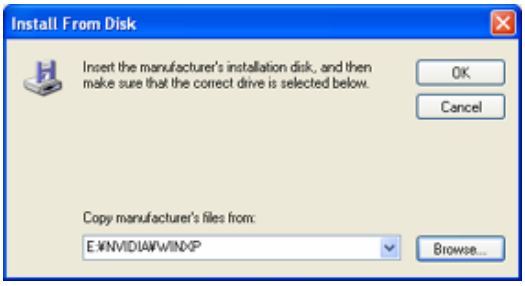
8. Select Display Adapter and press Next.



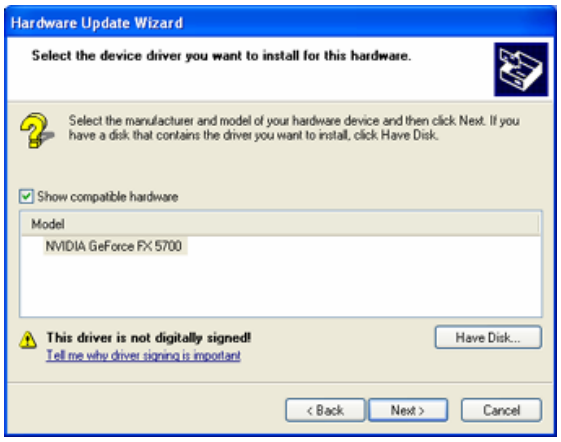
9. Click Have Disk button so that you can select display driver from CD disc.


Hardware Update Wizard
Select the device driver you want to install for this hardware.
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Manufacturer
(Standard IDE ATA/ATAPI co
(Standard keyboards)
(Standard system devices)
Acer
Model
Standard Dual Channel PCI IDE Controller
This driver is digitally signed.
Tell me why driver signing is important
Have Disk...
< Back
Next >
Cancel

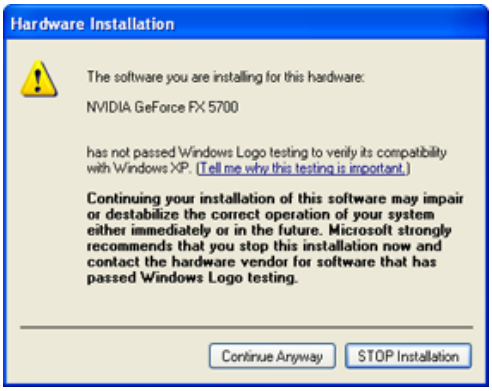
10. Enter \NVIDIA\Win2000 or \NVIDIA\WinXP, then click OK.



11. Select your graphic card, then click Next button.


Hardware Update Wizard
Select the device driver you want to install for this hardware.
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Show compatible hardware
Model
NVIDIA GeForce FX 5700
This driver is not digitally signed!
Tell me why driver signing is important
Have Disk...
< Back
Next >
Cancel

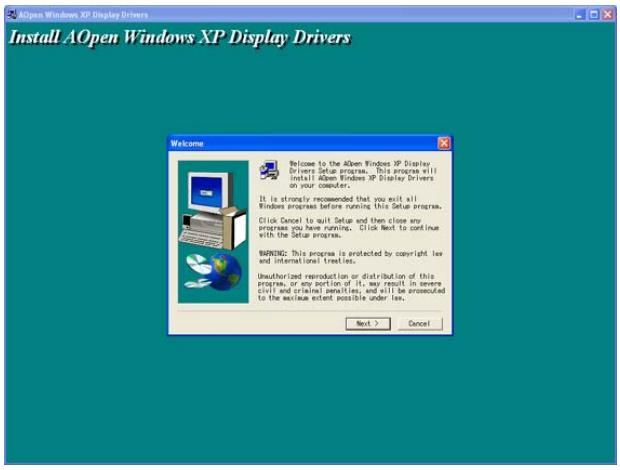
12. A warning dialog “Hardware Installation” will shown if the driver that you choose is not Microsoft WHQL certified one, anyway, please click “Continue Anyway” button to continue the installation procedures.


Hardware Installation
The software you are installing for this hardware:
NVIDIA GeForce FX 5700
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

13. After finish installation. A message box will prompt you that the driver is upgraded and will not work until you restart your computer. Then click Finish button to close this dialog.

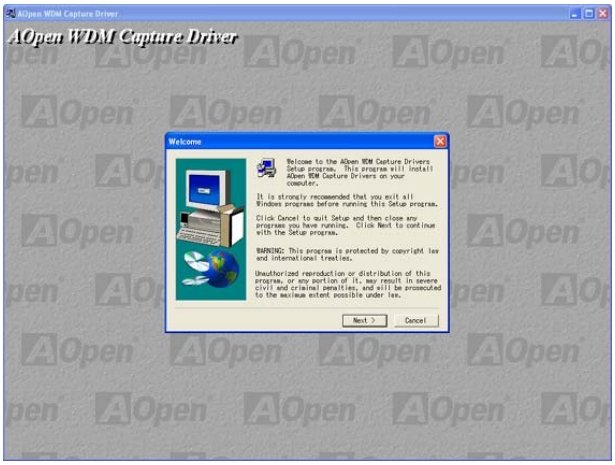
3.2 – Display Driver Automatic Installation

1. Start Windows XP/2000/NT/Me/98/95, and insert the installation CD disc into the CD-ROM drive.
2. The display driver installation wizard will appear, Click on VGA Driver Installation
3. The Welcome dialog box will appears, Click Next button to continue.
4. Please read Software License Agreement before begin installing drivers, and click Yes to continue to install.
5. After complete installing VGA driver, Windows will ask you reboot system to enable VGA display driver.
6. After system reboot, VGA display driver is setup OK, and ready to go.



3.3 – WDM Capture Driver Installation

1. Start Windows XP/2000/NT/Me/98/95, and insert the installation CD disc into the CD-ROM drive.
2. The display driver installation wizard will appear, Click on WDM Capture Driver Installation
3. The Welcome dialog box will appears, Click Next button to continue.
4. Please read Software License Agreement before begin installing drivers, and click Yes to continue to install.
5. After complete installing VGA driver, Windows will ask you reboot system to enable WDM Capture Driver.
6. After system reboot, Please check your device manager page, to make sure there were four NVIDIA WDM capture device inside.



Chapter 4 – Software Introduction

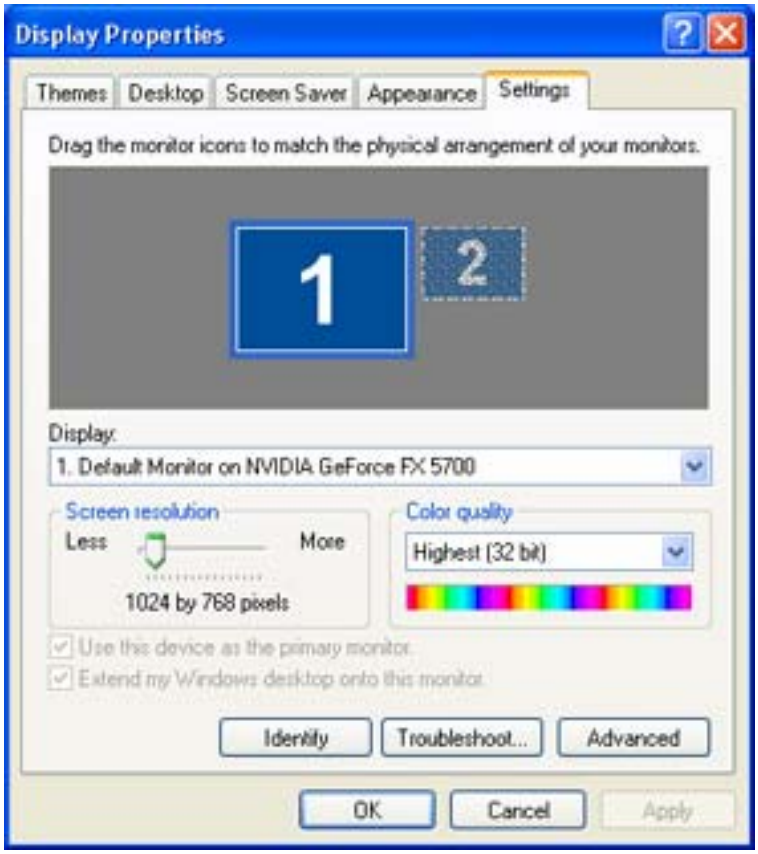
4.1 – NVIDIA Display Properties

NVIDIA Display Properties is NVIDIA's control panel-based user interface for configuring advanced display properties of current release of the NVIDIA Windows Display Driver software.

Accessing the NVIDIA Control Panel

To Access the NVIDIA control panel, you can use this procedure:

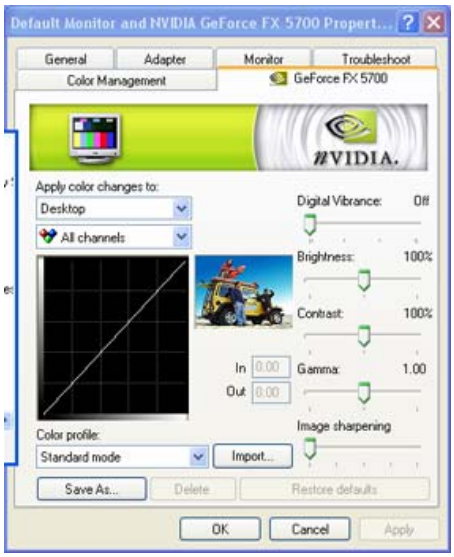
1. From your Windows desktop, right click to display the context menu and click Properties.
2. Click the Settings tab and then Advanced. You will see the name of your NVIDIA GPU on tab.
3. Click the NVIDIA GPU tab which displays the name of the NVIDIA GPU.
4. Click Additional Properties and the any of those tabs to access its properties page:



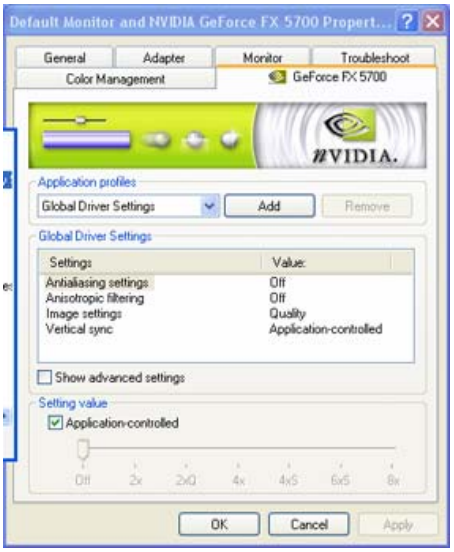
5. To return the NVIDIA GPU page, click OK from any of the pages listed above.

Chapter 4 – Software Introduction

A. Color Correction Setting – lets you make color adjustments, such as brightness, contrast, and gamma values,



B. Direct3D Setting –



C. Desktop Utilities –

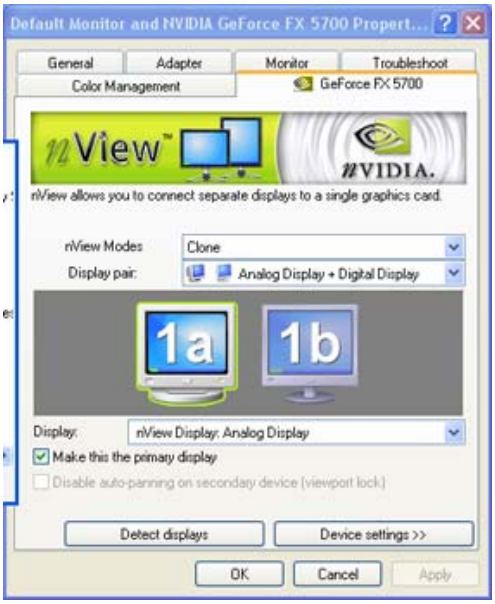
Default Monitor and NVIDIA GeForce FX 5700 Propert...
General
Adapter
Monitor
Troubleshoot
Color Management
GeForce FX 5700
NVIDIA.
The NVIDIA Settings taskbar utility lets you conveniently access various features and presets you've configured in the Display Properties directly from the Windows taskbar.
Display the NVIDIA Settings icon in the taskbar
My connected TV is not being detected
Detect displays
Restore defaults
OK
Cancel
Apply

D. Overlay Controls –

4.2 – NVIDIA nView and Desktop Manager

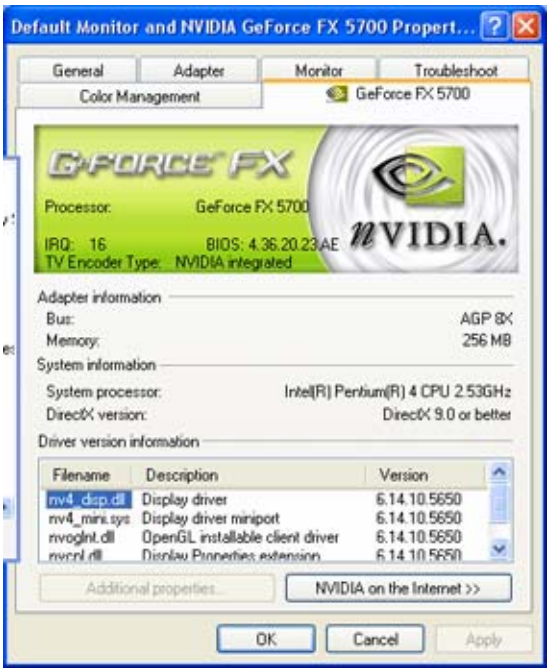
4.2.1 – nView

nView represents a collection of multi-display technologies encompassing driver support, multi-display GPU architecture, and desktop management support.



4.2.2 – Desktop Manager

The primary nView Component is the Desktop Manager, which is a user-level application utility that focuses on making you more productive when working on your Windows desktop. nView Desktop Manager supports both single-display and multi-display configurations running with single-display



Multi-Display Support

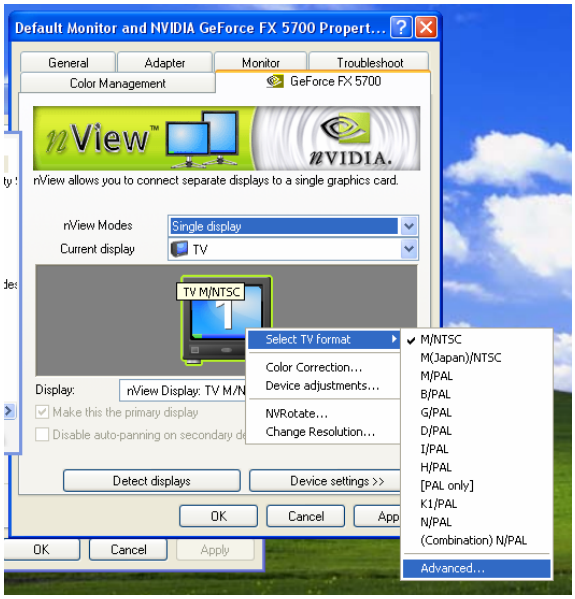
The Desktop Manager feature set primarily focuses on multi-display use by workstation users in finance, corporate, digital content creation (DCC) and similar organizations as well as in the mobile (laptop) markets. Therefore, to take advantage of the full feature set of the Desktop Manager, your need a multi-display

configuration. With multiple displays, you can view a single application as a large window stretching across several displays, or you can display different applications on each monitor, Using a multi-display configuration is an efficient and cost-effective way to increase the size of your computer display area, commonly called the “desktop”.

TV Settings.

This section provides the key functions in terms of fine tune TV video output.

To Open NVIDIA Control Panel page, please reference the steps of chapter 4-1.

Right-click TV icon and select the 'advanced' item –	The TV Settings page displays –
	

1. Signal format:

   Select a signal format supported by your TV.(This signal format information can checked from TV's maunal.)

2. Video output format:

   Select the type of connector you are using to attach your TV. 'Composite Video-Out' or 'S-Video-Out'.

Single-Display Support

Desktop Manager is designed for broad applications across NVIDIA's wide range of VGA card, Therefore single-display users can also take advantage of many of its features, Although you can not use multi-display features in a single-display configuration, you can create multiple desktops and use hot keys and windows effects.

Note To User:
If 4-Pin power connector located at the edge of the board, as shown in the diagram above, please connect the system power supply cable and the 4-Pin connector on the graphics card before boot on PC to assure system operates smoothly.